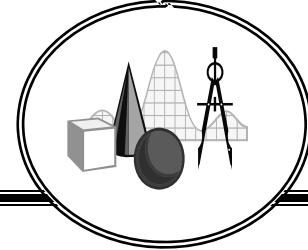


altitude



Definition and illustration (if applicable):

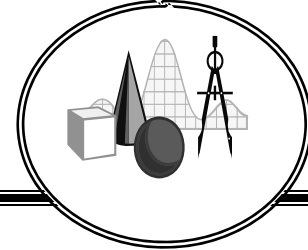
the distance from one side of a polygon to the vertex farthest from that side of the polygon

the shortest distance between the base of a geometric figure and the “top” of the figure; the “top” may be an apex, vertex, or another base

Associated terms:

Grades 6 through 8

area



Definition and illustration (if applicable):

the measure (usually in square units) of the interior region of a two-dimensional figure

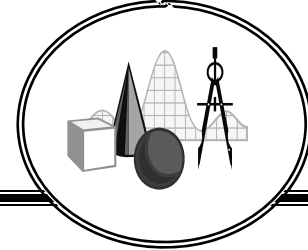
The area of a polygon in the coordinate plane is a positive number such that:

- **The area of the unit square is one;**
- **Congruent polygons have equal areas;**
- **If a polygon is a union of two or more polygons which do not have common interior points, then the area is the sum of the areas of these polygons.**

Associated terms:

Grades 6 through 8

arithmetic sequence



Definition and illustration (if applicable):

a set of numbers arranged so that the difference between any two consecutive numbers is the same

The difference is the common difference.

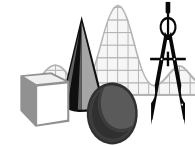
3, 6, 9, 12.... common difference is 3

3, 9, 27, 81.... no common difference

Associated terms: geometric sequence

Grades 6 through 8

box-and-whisker plot

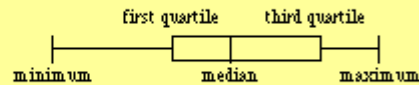


Definition and illustration (if applicable):

**a visual display of the five number summary (Q1, Q2, Q3, minimum, maximum)
of a set of data**

The box-and-whisker plot does not show outliers; the whiskers extend all the way to minimum and maximum values regardless of how far above or below Q2 they may be.

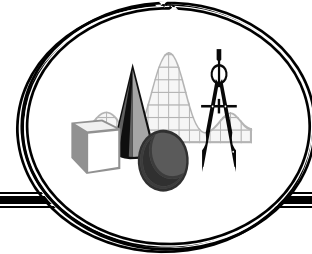
Box-and-whisker plot:



Associated terms:

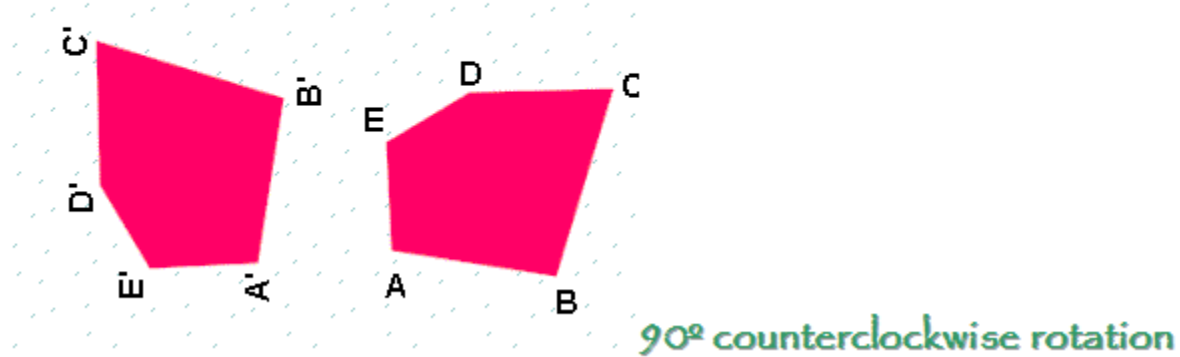
Grades 6 through 8

center of rotation



Definition and illustration (if applicable):

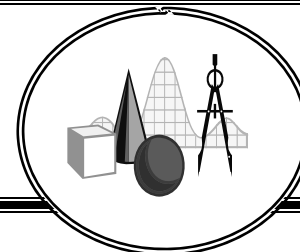
the fixed point around which a geometric figure is rotated or turned
The point of rotation may be part of the figure but need not be.



Associated terms: rotation, transformations, reflection, dilation

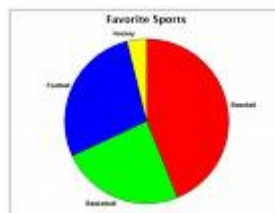
Grades 6 through 8

circle graph



Definition and illustration (if applicable):

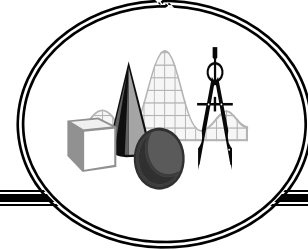
a graph that shows a circle divided into sectors in order to compare different parts of a data set to each other or to the entire set



Associated terms:

Grades 6 through 8

circumference



Definition and illustration (if applicable):

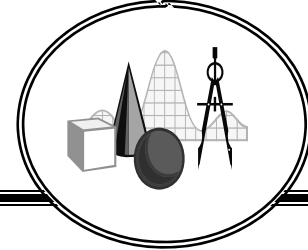
the distance around a circle

Formula: $2 \pi r$ or πd

Associated terms:

Grades 6 through 8

coefficient



Definition and illustration (if applicable):

a numerical factor in a term containing variables

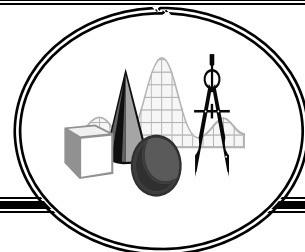
$3xy^2$: 3 is the coefficient; 2 is an exponent; x and y are variables

xy^3z^6 : the coefficient is 1; 3 is an exponent; 6 is an exponent; x, y, and z are variables

Associated terms: variable

Grades 6 through 8

common factor



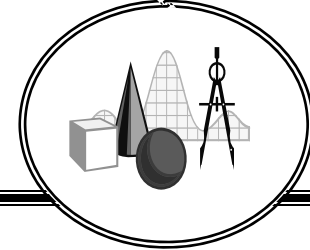
Definition and illustration (if applicable):

an integer that is a factor of two or more numbers

5 is a common factor of 10, 15, 20, and 100

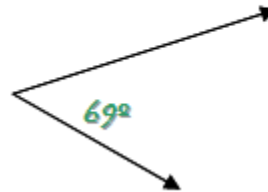
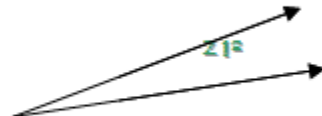
Associated terms:

complementary angles



Definition and illustration (if applicable):

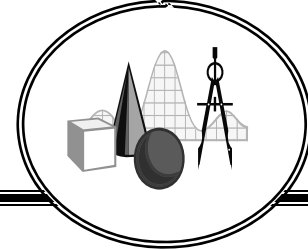
any two angles such that the sum of their measures is 90°



Associated terms: supplementary angles

Grades 6 through 8

composite number



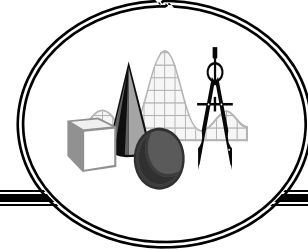
Definition and illustration (if applicable):

any whole number with more than two factors

Associated terms:

Grades 6 through 8

cone



Definition and illustration (if applicable):

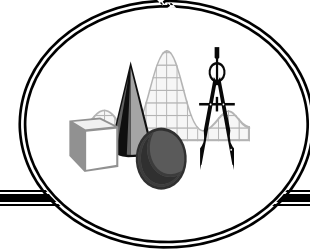
a three-dimensional figure that consists of a circular face (the base), a point not in the plane of the base (the vertex), and a lateral surface that connects the vertex to each point on the boundary of the base



Associated terms: pyramid, prism, cylinder, polyhedron

Grades 6 through 8

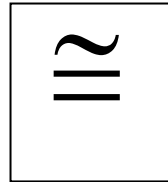
congruent figures



Definition and illustration (if applicable):

two or more geometric figures that have the same size and shape

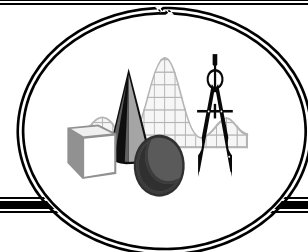
symbol:



Associated terms: similar

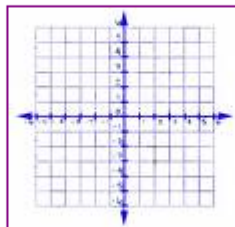
Grades 6 through 8

coordinate plane



Definition and illustration (if applicable):

A two-dimensional system in which a location is described by its distances from two perpendicular reference lines (axes)

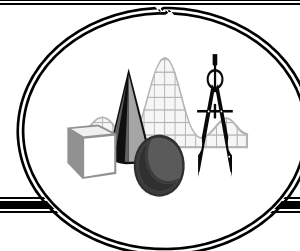


The horizontal axis is the x-axis and the vertical axis is the y-axis.

Associated terms: origin

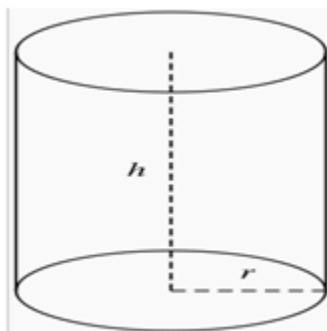
Grades 6 through 8

cylinder



Definition and illustration (if applicable):

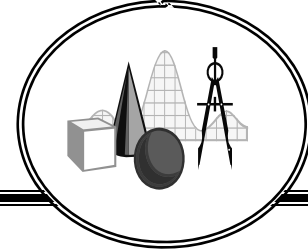
A three-dimensional figure that consists of two parallel, congruent, circular regions (bases) and a lateral surface that connects the boundaries of the bases



Associated terms: polyhedron, pyramid, cone, prism

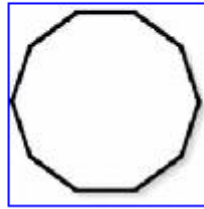
Grades 6 through 8

decagon



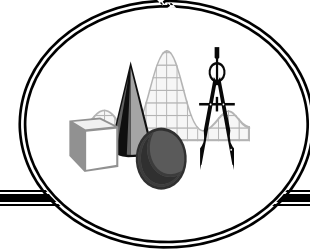
Definition and illustration (if applicable):

a polygon with ten (10) sides



Associated terms: polygon

dependent variable



Definition and illustration (if applicable):

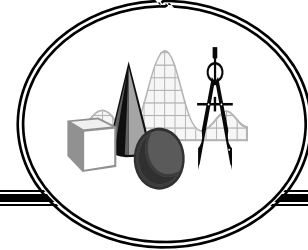
Dependent and independent variables refer to values that change in relationship to each other. The dependent variables are those that are observed to change in response to the independent variables. The independent variables are those that are deliberately manipulated to invoke a change in the dependent variables

In design of experiments, ***independent variables*** are those whose values are controlled or selected by the experimenter to determine the relationship to an observed phenomenon (the dependent variable).

Associated terms: independent variable, variable

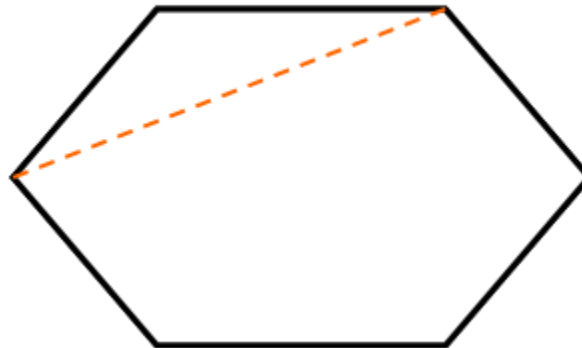
Grades 6 through 8

diagonal



Definition and illustration (if applicable):

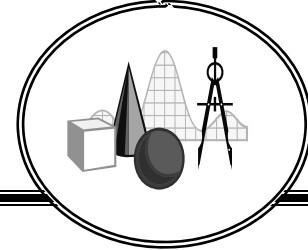
a line segment between non-consecutive vertices in a polygon



Associated terms: polygon

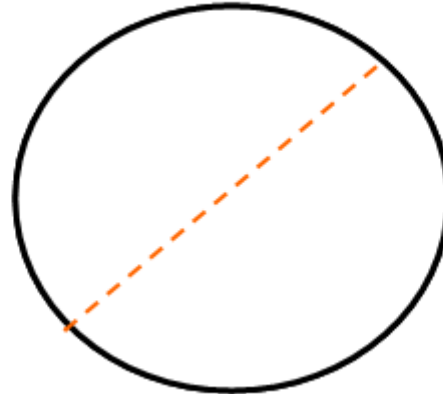
Grades 6 through 8

diameter



Definition and illustration (if applicable):

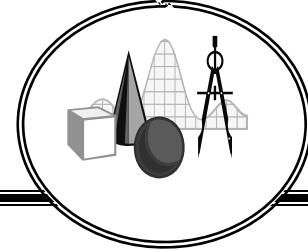
a chord that contains the center of a circle



Associated terms: circle, chord

Grades 6 through 8

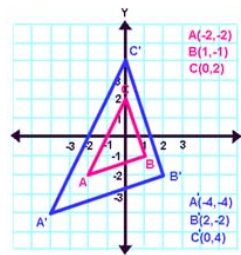
dilation



Definition and illustration (if applicable):

A transformation in which a figure grows larger

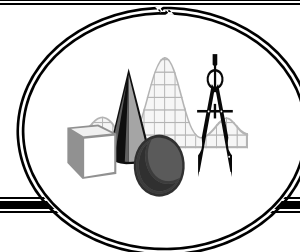
Dilations may be with respect to a point (a geometric figure) or an axis related to the graph of a geometric figure.



Associated terms: rotation, transformations, translation, reflection

Grades 6 through 8

divisible



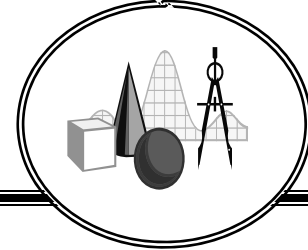
Definition and illustration (if applicable):

capable of being divided by a number (a factor) so that there is a remainder of zero

Associated terms:

Grades 6 through 8

domain



Definition and illustration (if applicable):

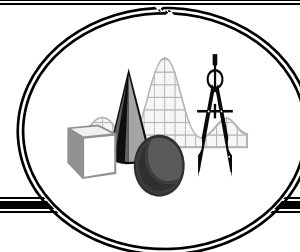
in a function $f(x)$, the possible values for x ; the set of values for the independent variable for which a function or relation is defined

Typically, this is the set of x -values that generate real y -values.

Associated terms: range, function, relation

Grades 6 through 8

dimensions (of a matrix)



Definition and illustration (if applicable):

number of rows and the number of columns of a matrix, written $r \times c$

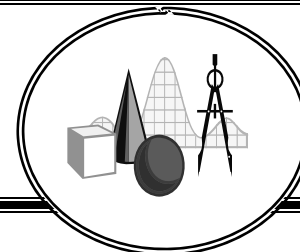
$$\begin{bmatrix} 1 & 5 & 7 & 5 \\ 4 & 3 & 2 & 0 \\ 9 & 8 & 6 & 7 \end{bmatrix}$$

3×4 matrix

Associated terms: matrix

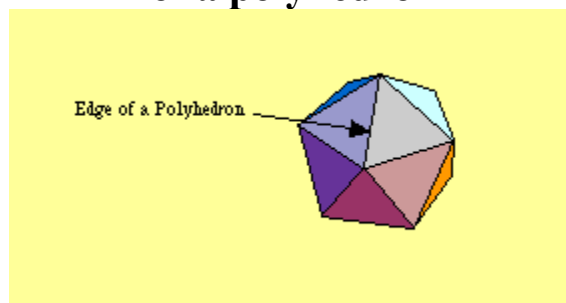
Grades 6 through 8

edge



Definition and illustration (if applicable):

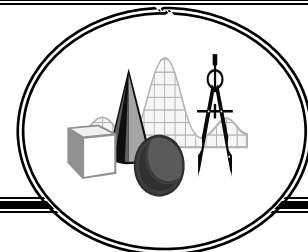
A line segment formed by the intersection of two faces (planes) that comprise part of a polyhedron



Associated terms: polyhedron, prism

Grades 6 through 8

equation



Definition and illustration (if applicable):

a mathematical statement that two or more expressions are equivalent

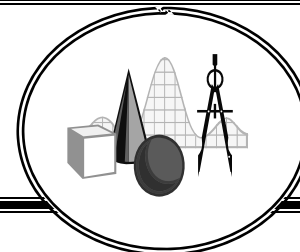
$$\frac{1}{x} = x + 1$$

$$3x - 4y = 1$$

Associated terms: expression, inequality

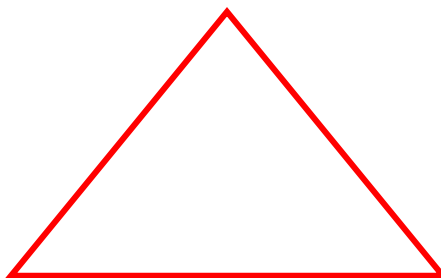
Grades 6 through 8

equilateral triangle



Definition and illustration (if applicable):

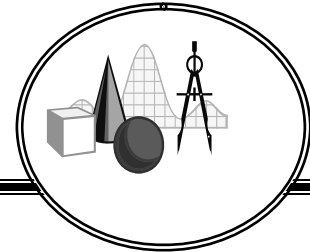
**a triangle with three congruent sides and three congruent angles;
each angle measures 60°**



Associated terms: triangle, acute triangle, isosceles triangle

Grades 6 through 8

equivalent

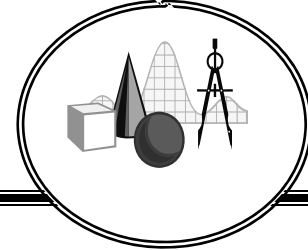


Definition and illustration (if applicable):
equal in value

Associated terms:

Grades 6 through 8

even integer



Definition and illustration (if applicable):

an integer that is a multiple of 2

$\{\dots-4, -2, 0, 2, 4, 6\dots\}$

Is zero even or odd?

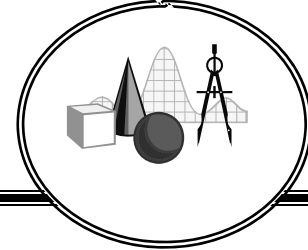
*An integer 'n' is called *even* if there exists an integer m such that $n = 2m$...From this, it is clear that $0 = (2)(0)$ is even.*

(Dr. Pete, The Math Forum)

Associated terms: odd integer, integer

Grades 6 through 8

experimental probability



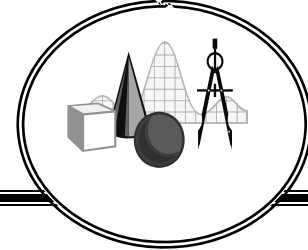
Definition and illustration (if applicable):

a statement of probability based on the results of a series of actual trials; a ratio that compares the total number of times a favorable outcome occurred to the total number of times the experiment was done

Associated terms: theoretical probability

Grades 6 through 8

exponent



Definition and illustration (if applicable):

Base^{exponent}

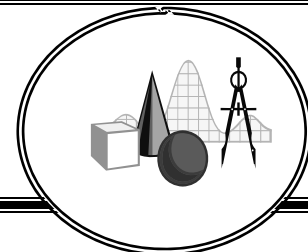
exponential notation: $5^7 = 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 \cdot 5 = 78,125$

The exponent is a number that indicates how many times the base is used as a factor; i. e., 5 is used as a factor 7 times

Associated terms:

Grades 6 through 8

expression



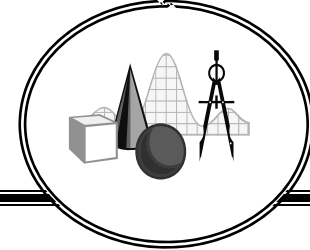
Definition and illustration (if applicable):

A combination of variables, numbers, and/or operations that represents a mathematical relationship but no statement of equality or inequality

Associated terms: equation, inequality

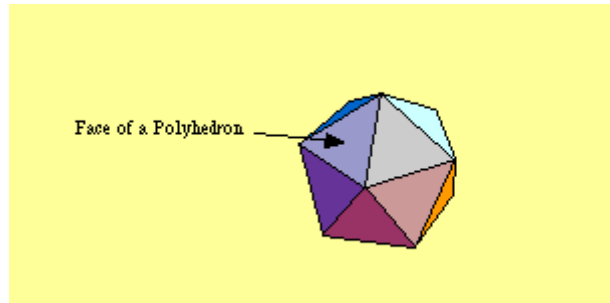
Grades 6 through 8

face



Definition and illustration (if applicable):

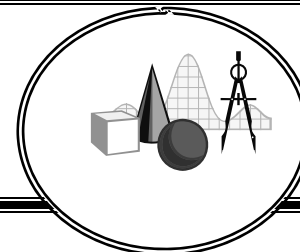
a polygon that forms one of the flat surfaces of a polyhedron



Associated terms: edge (of a polyhedron), polyhedron

Grades 6 through 8

factor



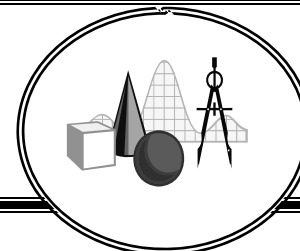
Definition and illustration (if applicable):

a number or expression that is multiplied by one or more other numbers or expressions to yield a product

Associated terms:

Grades 6 through 8

formula

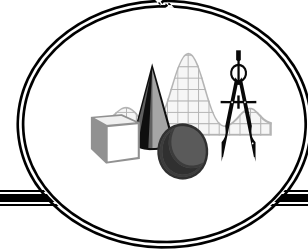


Definition and illustration (if applicable):

an equation that shows the relationship between two or more quantities; often in the form of a mathematical rule

Associated terms:

frequency distribution



Definition and illustration (if applicable):

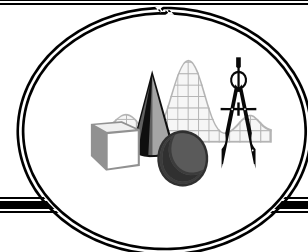
a list of values a variable assumes in a sample; may be displayed as a table that shows how often each item, number, or range of numbers occurs in a set of data; usually a list, ordered by quantity, showing the number of times each value appears

Rank	Degree of Agreement	Frequency
1	Strongly agree	25
2	Somewhat agree	35
3	Not sure	20
4	Disagree somewhat	15
5	Strongly disagree	30

Associated terms:

Grades 6 through 8

Fundamental Counting Principle



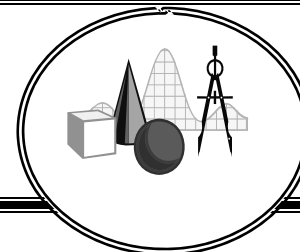
Definition and illustration (if applicable):

If there are m ways to do one thing, and n ways to do another, then there are $m \cdot n$ ways of doing both. The Fundamental Counting Principle is the guiding rule for finding the number of ways to accomplish two tasks.

Associated terms:

Grades 6 through 8

geometric sequence



Definition and illustration (if applicable):

a set of numbers arranged so that the ratio between any two consecutive sequence elements is constant

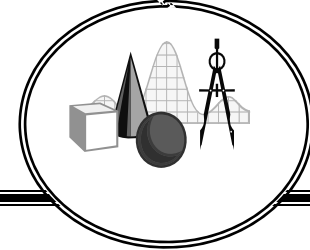
$\{1, 3, 9, 27, 81, \dots\}$ common ratio is 3

$\{8, 4, 2, 1, \frac{1}{2}, \frac{1}{4}, \dots\}$ common ratio is $\frac{1}{2}$

Associated terms:

Grades 6 through 8

greatest common factor



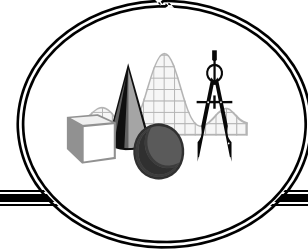
Definition and illustration (if applicable):

the greatest number that is a factor of two or more numbers

Associated terms:

Grades 6 through 8

height

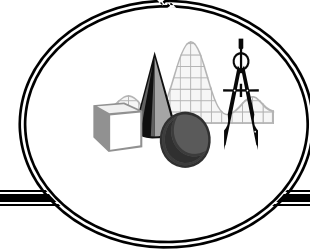


Definition and illustration (if applicable):
the perpendicular distance between two geometric objects

Associated terms:

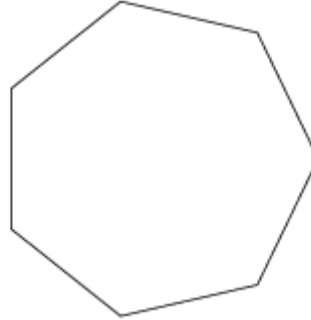
Grades 6 through 8

heptagon



Definition and illustration (if applicable):

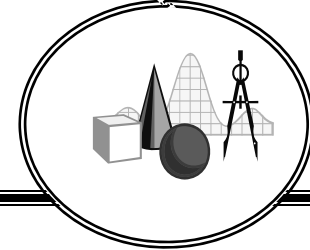
a polygon with seven sides; also called a septagon



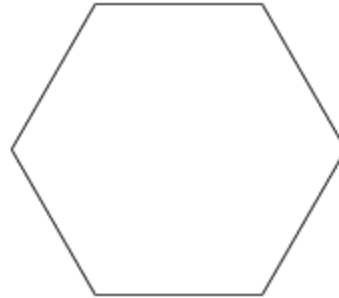
Associated terms: polygon

Grades 6 through 8

hexagon



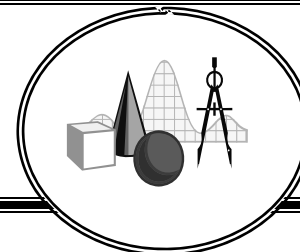
Definition and illustration (if applicable):
a polygon with six sides



Associated terms: polygon

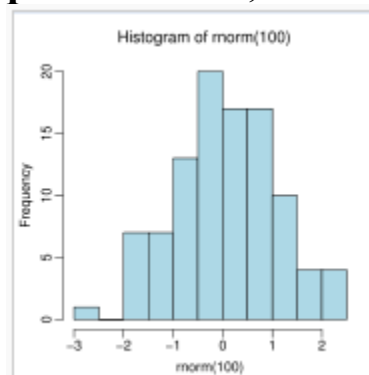
Grades 6 through 8

histogram



Definition and illustration (if applicable):

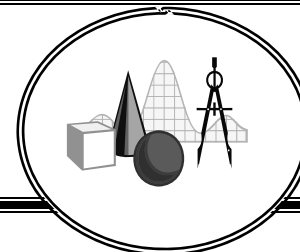
a graph with bars used to display categorical data; the categories are consecutive, numerical and in equal intervals; the bars touch each other



Associated terms:

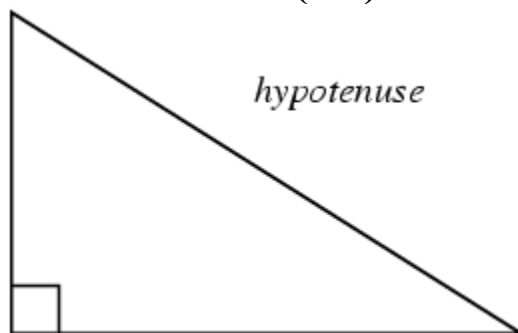
Grades 6 through 8

hypotenuse



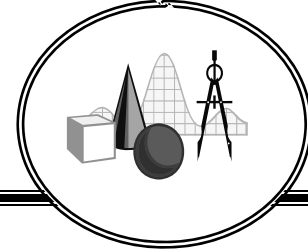
Definition and illustration (if applicable):

in any right triangle, the side opposite the right angle; the hypotenuse is always the longest side of the right triangle because it is opposite the angle of greatest measure (90°)



Associated terms:

independent variable



Definition and illustration (if applicable):

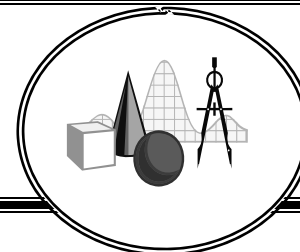
Dependent and independent variables refer to values that change in relationship to each other. The dependent variables are those that are observed to change in response to the independent variables. The independent variables are those that are deliberately manipulated to invoke a change in the dependent variables

In design of experiments, ***independent variables*** are those whose values are controlled or selected by the experimenter to determine the relationship to an observed phenomenon (the dependent variable).

Associated terms: dependent variable, variable

Grades 6 through 8

inequality



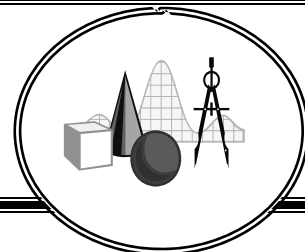
Definition and illustration (if applicable):

a mathematical sentence that compares two expressions that may or may not be equivalent; uses one of these symbols \neq , \leq , \geq , $<$, $>$

Associated terms:

Grades 6 through 8

integer



Definition and illustration (if applicable):

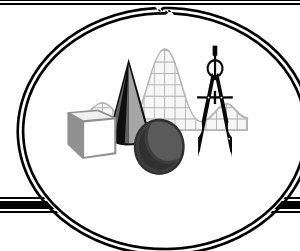
the set of whole numbers and their opposites

{... -3, -2, -1, 0, 1, 2 ...}

Associated terms:

Grades 6 through 8

interquartile range



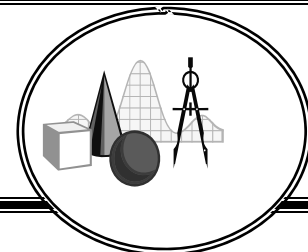
Definition and illustration (if applicable):

the difference between the numeric values representing the 75th and 25th percentiles

Associated terms:

Grades 6 through 8

irrational numbers



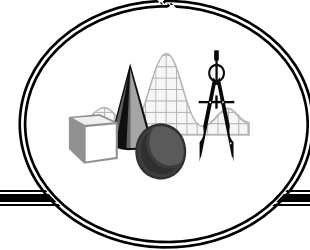
Definition and illustration (if applicable):

a number that cannot be written as the ratio of two integers; when written as a decimal, the digits of an irrational number neither terminate nor repeat

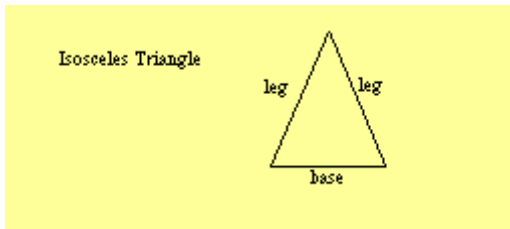
Associated terms:

Grades 6 through 8

isosceles triangle



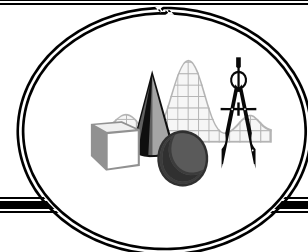
Definition and illustration (if applicable):
a triangle with at least two congruent sides



Associated terms:

Grades 6 through 8

least common multiple



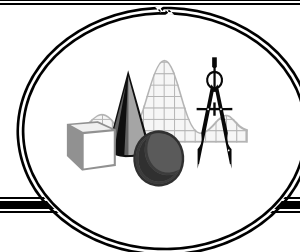
Definition and illustration (if applicable):

the smallest non-zero number that is a multiple of two or more numbers

Associated terms:

Grades 6 through 8

linear equation



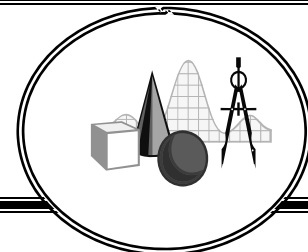
Definition and illustration (if applicable):

an equation of degree 1; graph is a line; shows a relationship between two variables; an equation of the form $y = mx + b$ where a and b are real numbers

Associated terms:

Grades 6 through 8

matrix



Definition and illustration (if applicable):

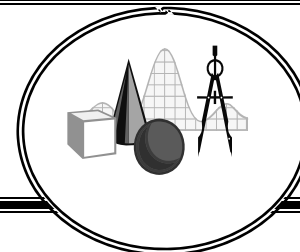
a set of numbers in a rectangular display with rows and columns

$$\begin{bmatrix} 1 & 5 & 7 & 5 \\ 4 & 3 & 2 & 0 \\ 9 & 8 & 6 & 7 \end{bmatrix}$$

Associated terms: dimensions (of a matrix)

Grades 6 through 8

mean



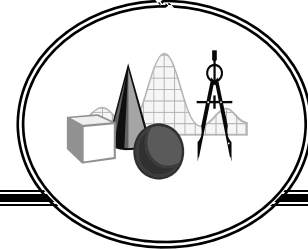
Definition and illustration (if applicable):

a measure of central tendency which is affected by all data points (with the possible exception of outliers); calculated by finding the sum of the data values and dividing by the number of data points

Associated terms:

Grades 6 through 8

median



Definition and illustration (if applicable):

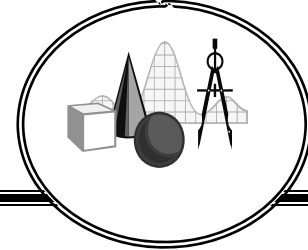
a measure of central tendency that occupies the middle position of a data set in ranked order

If there is an even number of data points in the set, the median is the mean of the two middle data values. If there is an odd number of data points in the set, the median is the middle data point.

Associated terms:

Grades 6 through 8

mode



Definition and illustration (if applicable):

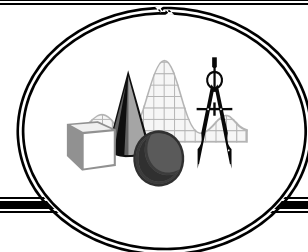
a measure of central tendency that is the most frequently occurring value

The mode is used primarily with nominal variables.

Associated terms:

Grades 6 through 8

measures of central tendency



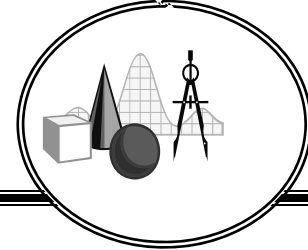
Definition and illustration (if applicable):

**descriptive statistics that describe the center of the data set;
mean, median and mode**

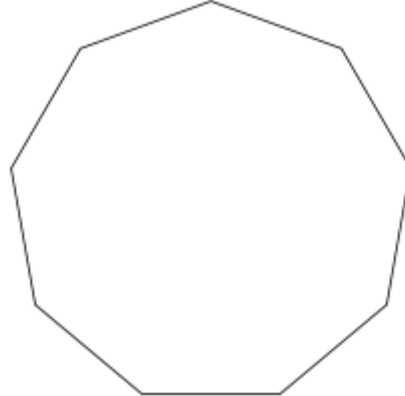
Associated terms:

Grades 6 through 8

nonagon



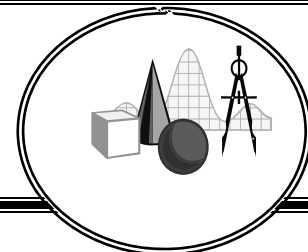
Definition and illustration (if applicable):
a polygon with nine sides



Associated terms:

Grades 6 through 8

natural numbers



Definition and illustration (if applicable):

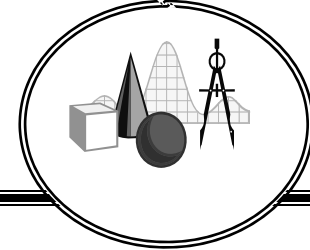
the counting numbers; the positive whole numbers; a positive integer

$$\mathbf{N = \{ 1, 2, 3, \dots \}}$$

Associated terms:

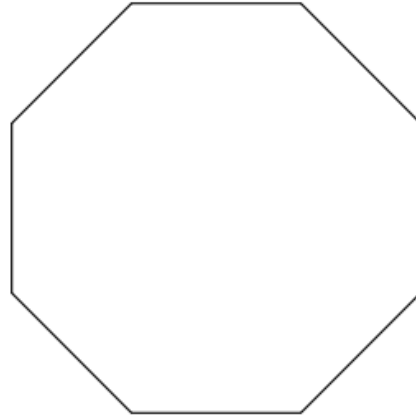
Grades 6 through 8

octagon



Definition and illustration (if applicable):

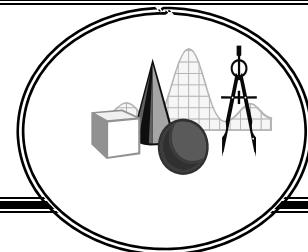
a polygon with eight sides



Associated terms:

Grades 6 through 8

odd integer



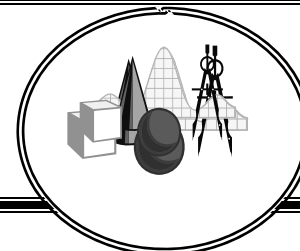
Definition and illustration (if applicable):

any integer that, when divided by 2, does not have an integer as the quotient

Associated terms: integer, even integer

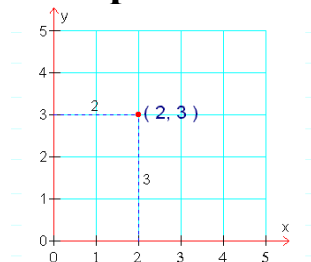
Grades 6 through 8

ordered pair



Definition and illustration (if applicable):

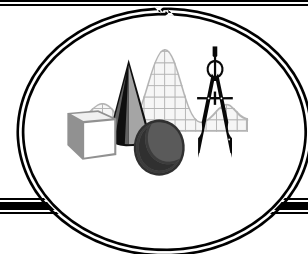
a pair of numbers used to locate a point in a coordinate plane; the pair is written in the form (x-coordinate, y-coordinate); x-coordinate is the perpendicular distance of the point from the y-axis; the y-coordinate is the perpendicular distance of the point from the x-axis



Associated terms: coordinate plane

Grades 6 through 8

origin



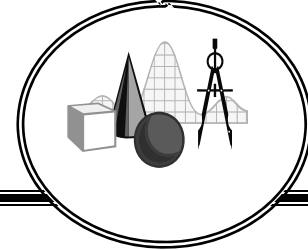
Definition and illustration (if applicable):

**in a coordinate plane, the point at the intersection of the x- and y-axes;
the point $(0, 0)$**

Associated terms: coordinate plane, ordered pair

Grades 6 through 8

outcome

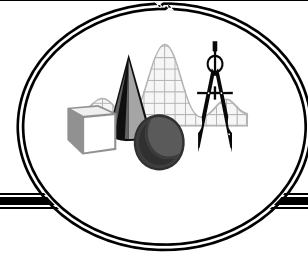


Definition and illustration (if applicable):
in a probability experiment, the result of an event

Associated terms:

Grades 6 through 8

outlier



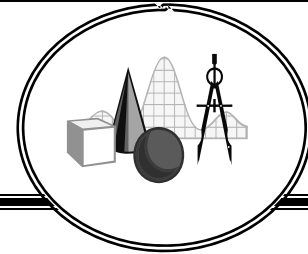
Definition and illustration (if applicable):

any value in a set of data that is notably farther from the mean than the other data; any data point that is more than 1.5 times the interquartile range above the 75th percentile or below the 25th percentile

Associated terms:

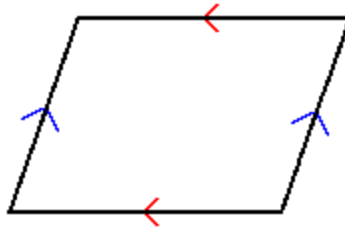
Grades 6 through 8

parallelogram



Definition and illustration (if applicable):

any quadrilateral with both pairs of opposite sides parallel



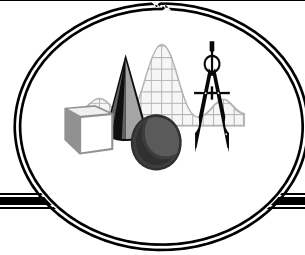
Properties of parallelograms:

- Both pairs of opposite sides are congruent.
- Both pairs of opposite angles are congruent.
- The diagonals bisect each other.

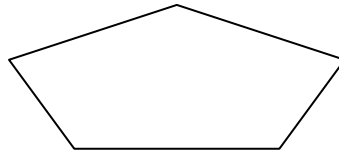
Associated terms:

Grades 6 through 8

pentagon



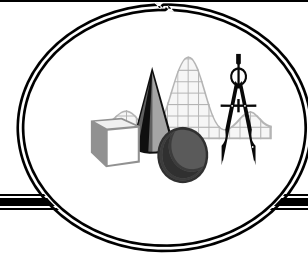
Definition and illustration (if applicable):
a polygon with five sides



Associated terms: polygon, triangle, quadrilateral, hexagon, heptagon, octagon, nonagon, decagon

Grades 6 through 8

percent



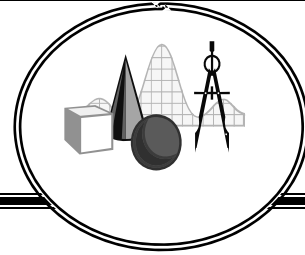
Definition and illustration (if applicable):

per cent means per one hundred; a special ratio in which the denominator is always 100

Associated terms:

Grades 6 through 8

perfect square



Definition and illustration (if applicable):

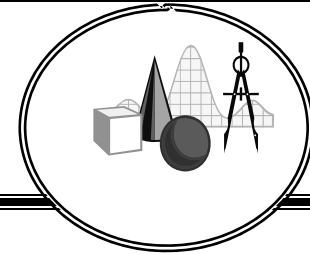
any natural number that can be expressed as a natural number multiplied by itself

examples: $1 = 1 \cdot 1$
 $25 = 5 \cdot 5$
 $1,600 = 40 \cdot 40$

Associated terms:

Grades 6 through 8

perimeter

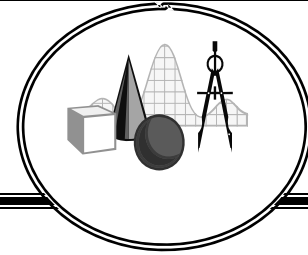


Definition and illustration (if applicable):
the distance around a geometric figure

Associated terms:

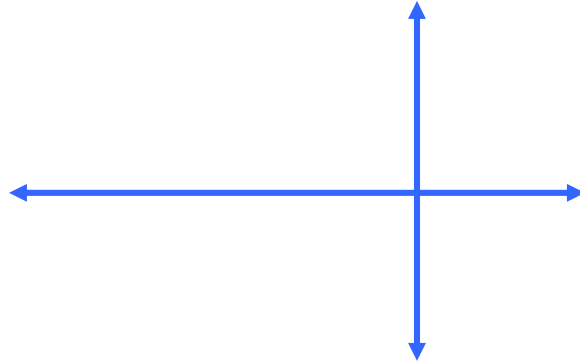
Grades 6 through 8

perpendicular lines



Definition and illustration (if applicable):

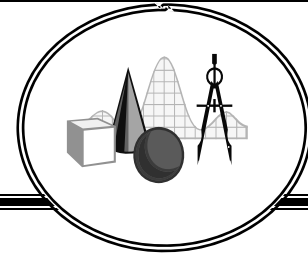
two lines that intersect to form right angles



Associated terms:

Grades 6 through 8

pi π



Definition and illustration (if applicable):

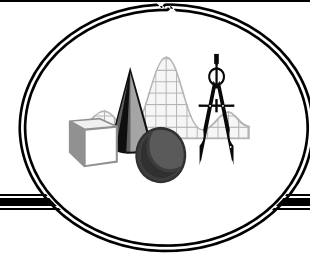
the ratio of the circumference of a circle to its diameter; approximately $\frac{22}{7}$;

decimal approximation 3.14

Associated terms:

Grades 6 through 8

plane figures

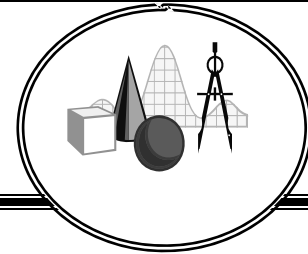


Definition and illustration (if applicable):
geometric figures that exist in two dimensions (a plane)

Associated terms:

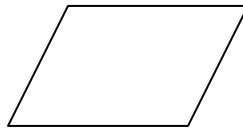
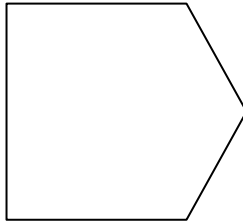
Grades 6 through 8

polygon



Definition and illustration (if applicable):

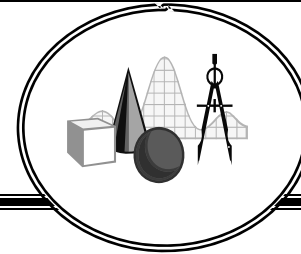
a simple, closed, plane figure with three or more sides that are line segments



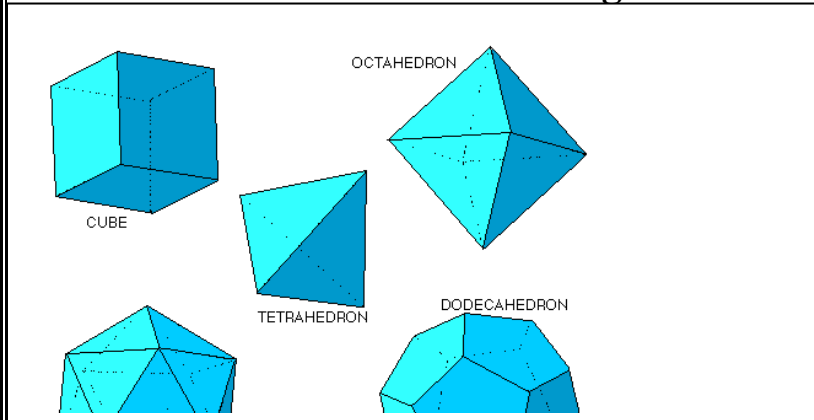
Associated terms:

Grades 6 through 8

polyhedron



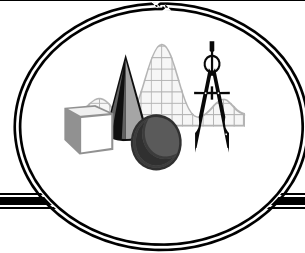
Definition and illustration (if applicable):
a three-dimensional geometric figure with polygonal faces



Associated terms:

Grades 6 through 8

prime number



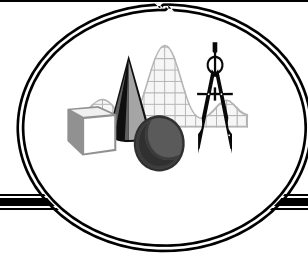
Definition and illustration (if applicable):

a natural number with exactly two factors (itself and one)

Associated terms: composite numbers

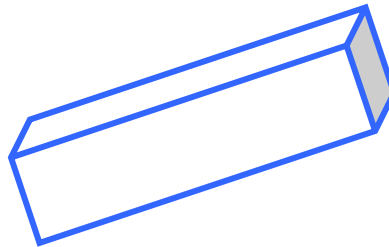
Grades 6 through 8

prism



Definition and illustration (if applicable):

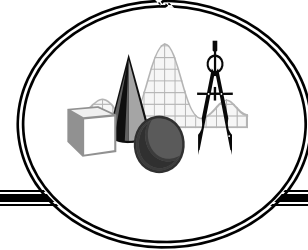
a polyhedron with two, parallel, polygonal bases



Associated terms: polyhedron

Grades 6 through 8

proportion



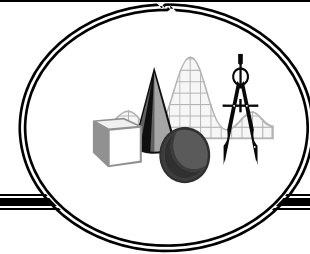
Definition and illustration (if applicable):

a statement of equality between ratios

Associated terms: natural numbers, rational numbers, integers

Grades 6 through 8

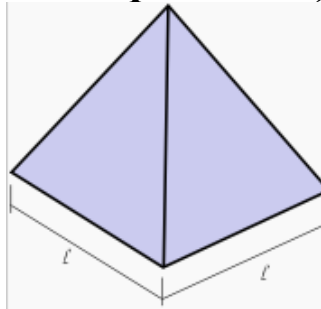
pyramid



Definition and illustration (if applicable):

a polyhedron with a polygonal base, triangular faces and a vertex

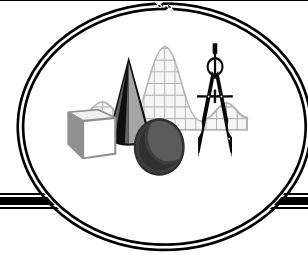
The shape of the base determines the name of pyramid (i. e., a square pyramid has a square base).



Associated terms:

Grades 6 through 8

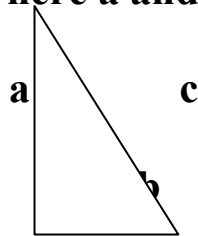
Pythagorean Theorem



Definition and illustration (if applicable):

A theorem defining the relationship between the lengths of the three sides of a right triangle;

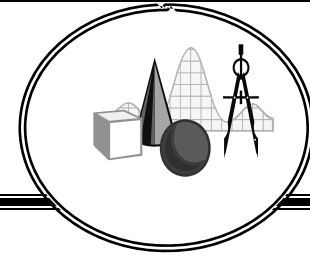
$a^2 + b^2 = c^2$ where a and b are the lengths of the legs of the right triangle and c is the length of the hypotenuse



Associated terms: hypotenuse

Grades 6 through 8

quadrilateral



Definition and illustration (if applicable):
a polygon with four sides

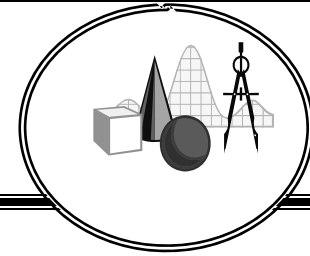
Examples:

- rectangle
- square
- parallelogram
- trapezoid
- rhombus

Associated terms: polygon, parallelogram, trapezoid, pentagon, hexagon, heptagon, nonagon, decagon

Grades 6 through 8

quartile



Definition and illustration (if applicable):

Any of the three values which divide the sorted data set into four equal parts so that each part represents $\frac{1}{4}$ of the sampled population. The first quartile (Q1) is the lower quartile, represents the 25th percentile, and is the data value below which 25% of the data lie. The second quartile (Q2) or the median represents the 50th percentile (half the data lie above Q2 and half the data lie below Q2). The third quartile (Q3) represents the 75th percentile and is the data value below which 75% of the data lie. The difference between Q3 and Q1 is the interquartile range.

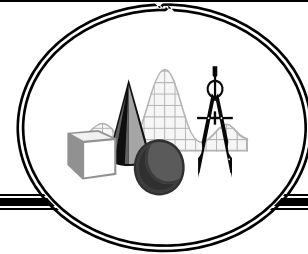
Use the median to divide the ordered data set into two halves. Do not include the median in either of the halves.

The lower quartile value is the median of the lower half of the data. The upper quartile value is the median of the upper half of the data.

Associated terms: interquartile range, median

Grades 6 through 8

ratio



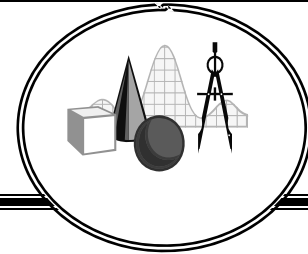
Definition and illustration (if applicable):

a comparison of any two quantities; may be expressed as $a : b$ or a to b or $\frac{a}{b}$

Associated terms: rational number, fraction

Grades 6 through 8

rational numbers



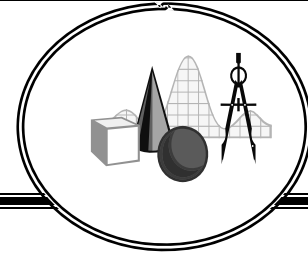
Definition and illustration (if applicable):

the set of numbers that can be expressed as a ratio of two integers

Associated terms:

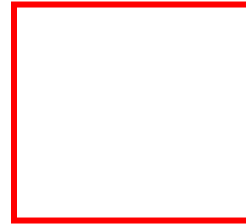
Grades 6 through 8

rectangle



Definition and illustration (if applicable):

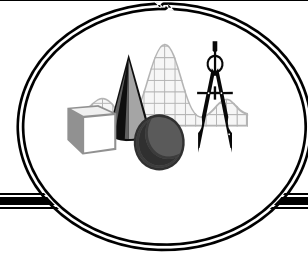
a parallelogram with one right angle; a square is a special case of a rectangle with four congruent sides



Associated terms: quadrilateral, rhombus

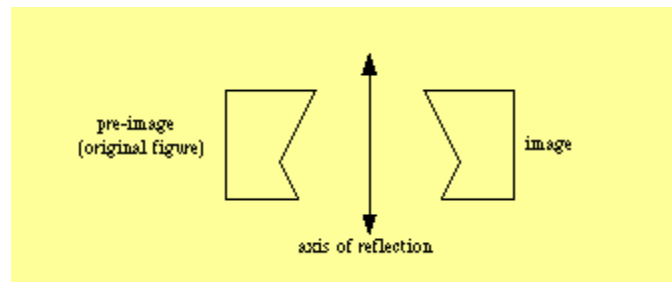
Grades 6 through 8

reflection



Definition and illustration (if applicable):

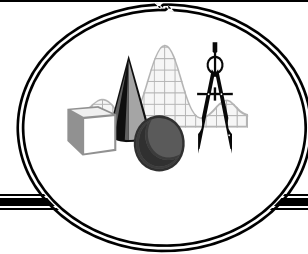
A transformation in which all points under than transformation are mirrored over a line of reflection



Associated terms: transformation, rotation, translation, dilation

Grades 6 through 8

relation



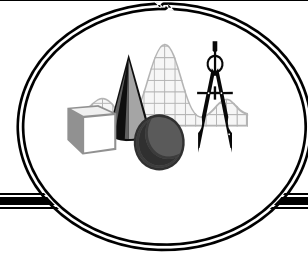
Definition and illustration (if applicable):

a rule that pairs each element in one set (the domain) with one or more elements in another set (the range); a set of ordered pairs in which the set of first coordinates is the domain of the relation and the set of second coordinates is the range

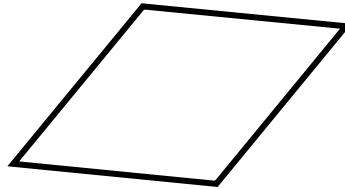
Associated terms: function

Grades 6 through 8

rhombus



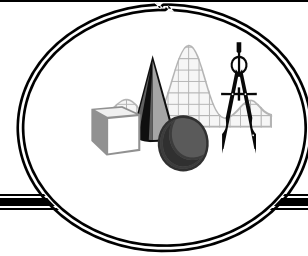
Definition and illustration (if applicable):
a parallelogram with four congruent sides



Associated terms: quadrilateral, parallelogram, square

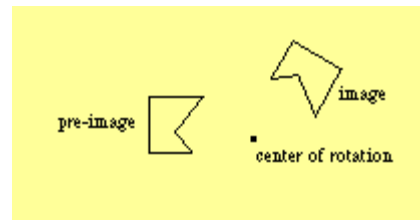
Grades 6 through 8

rotation



Definition and illustration (if applicable):

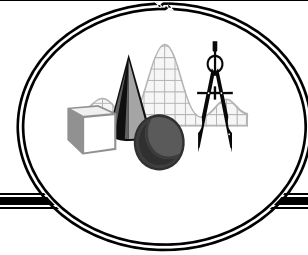
a transformation in which all points under the transformation are turned through an *angle of rotation* about a *center of rotation*



Associated terms: transformation, reflection, dilation, translation

Grades 6 through 8

sample space



Definition and illustration (if applicable):

the set of all possible outcomes of an experiment

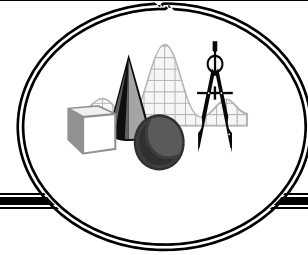
Example: a coin is flipped

Sample space = { heads, tails }

Associated terms: outcome, probability, theoretical probability

Grades 6 through 8

scale factor



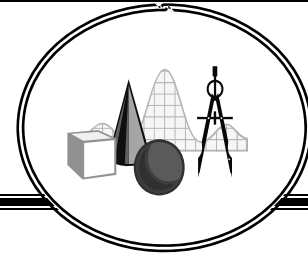
Definition and illustration (if applicable):

the ratio of any two corresponding lengths in two similar geometric figures
The ratio of areas of two similar figures is the square of the scale factor and the
ratio of the volumes of two similar figures is the cube of the scale factor.

Associated terms:

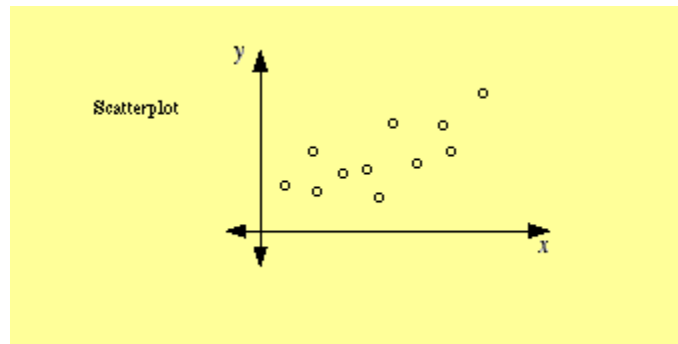
Grades 6 through 8

scatter plot



Definition and illustration (if applicable):

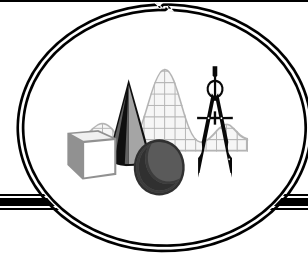
a graph of paired data in which the data values are plotted as points in (x, y) format



Associated terms:

Grades 6 through 8

scientific notation



Definition and illustration (if applicable):

a standardized way of writing real numbers

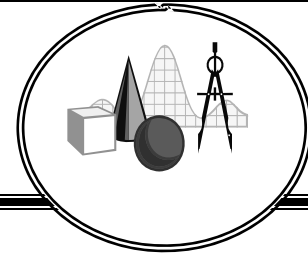
In scientific notation, all real numbers are written in the form $a \times 10^b$ where $1 \leq a < 10$ and b is an integer.

Example: $351 = 3.51 \times 10^2$

Associated terms:

Grades 6 through 8

similar



Definition and illustration (if applicable):

having the same shape but not necessarily the same size

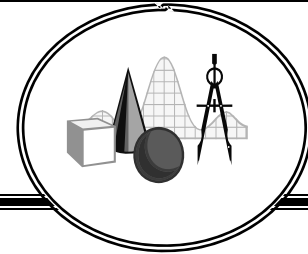
symbol: \approx



Associated terms: congruent

Grades 6 through 8

simple interest



Definition and illustration (if applicable):

a method of computing interest

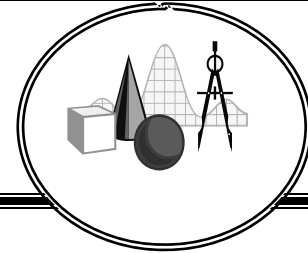
Interest is computed from the original (principal) alone no matter how much money has accrued.

$A = p (1 + nr)$ where A is the final amount, p is the principal, n is the number of years invested, and r is the rate of interest

Associated terms:

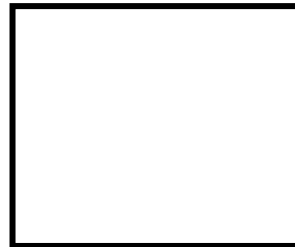
Grades 6 through 8

square



Definition and illustration (if applicable):

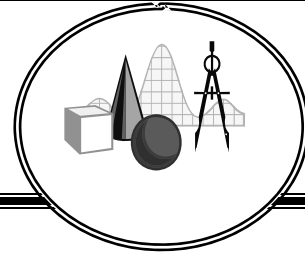
a parallelogram with one right angle and four congruent sides



Associated terms: parallelogram, rectangle, rhombus

Grades 6 through 8

square root



Definition and illustration (if applicable):

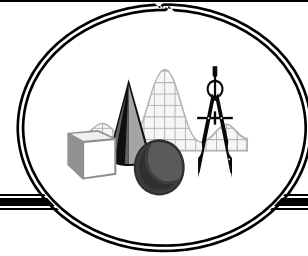
a nonnegative number that must be multiplied by itself to equal a given number

$$\sqrt{9} = 3 \text{ because } 3^2 = 9$$

Associated terms:

Grades 6 through 8

stem-and-leaf plot



Definition and illustration (if applicable):
a simple way to display the distribution of data

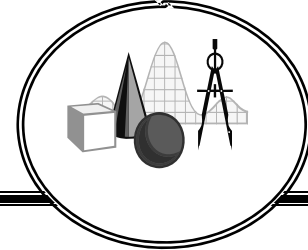
Data: 52, 65, 66, 72, 73, 74, 74,
76, 78, 81, 83, 83, 85, 99

Stemplot: 5 | 2
6 | 5, 6
7 | 2, 3, 4, 4, 6, 8
8 | 1, 3, 3, 5
9 | 9

Associated terms:

Grades 6 through 8

set



Definition and illustration (if applicable):

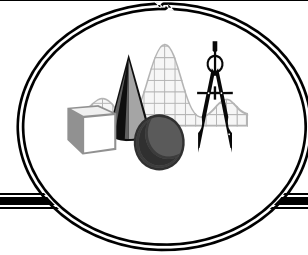
a group of numbers, variables, geometric figures or anything else

Sets can be written as lists using braces $\{ \}$. $\{1, 2, 3\}$ is the set containing the elements 1, 2, and 3. Neither order nor repetition matters in a set. $\{a, b, c\}$ and $\{c, a, b\}$ are the same set. $\{a, b\}$ and $\{a, a, b, b, b, b\}$ are the same set. Set A is a subset of Set B if all of the elements of Set A are elements of Set B (written $A \subset B$). The empty (null) set is a subset of all sets.

Associated terms:

Grades 6 through 8

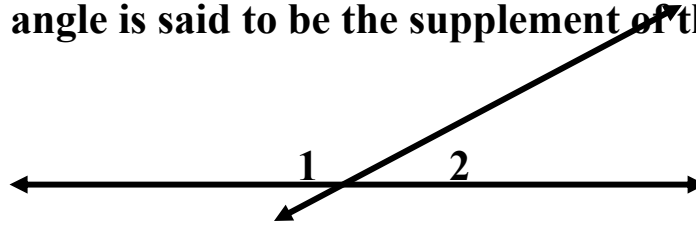
supplementary angles



Definition and illustration (if applicable):

two angles with measures adding to 180°

One angle is said to be the supplement of the other angle.

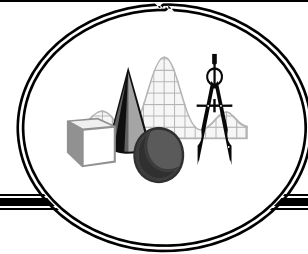


$\angle 1$ and $\angle 2$ are supplementary angles.

Associated terms: complementary angles

Grades 6 through 8

surface area



Definition and illustration (if applicable):

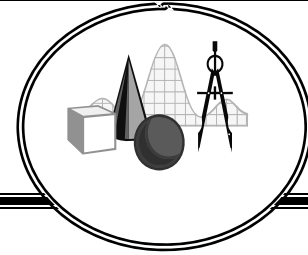
the total area of the exterior of a three-dimensional geometric figure; the lateral area added to the area of the base

Lateral area is the surface area of the lateral faces of the figure and does not include the area of the base.

Associated terms:

Grades 6 through 8

term



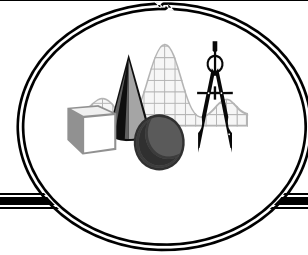
Definition and illustration (if applicable):

parts of an expression separated by + or - signs

Associated terms:

Grades 6 through 8

theoretical probability



Definition and illustration (if applicable):

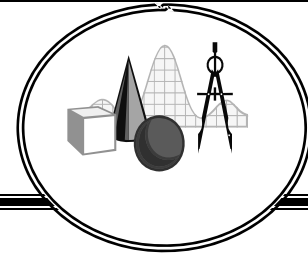
**the ratio of the number of expected outcomes
if the experiment is repeated over and over; P (E);**

**Example: the theoretical probability of drawing a king from a standard deck of
cards is $\frac{4}{52}$.**

Associated terms:

Grades 6 through 8

transformations

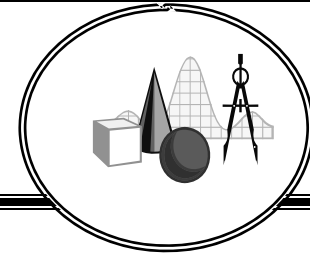


Definition and illustration (if applicable):
operations that alter the location or form of a figure

Associated terms: translation, rotation, dilation, reflection

Grades 6 through 8

translation



Definition and illustration (if applicable):

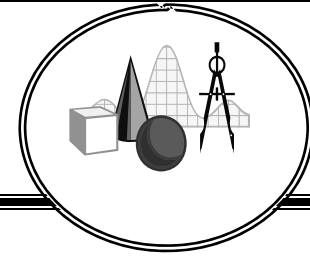
a transformation in which a geometric figure is moved to another location without changing its size (isometry) or orientation



Associated terms: transformations, reflection, rotation, dilation

Grades 6 through 8

trapezoid



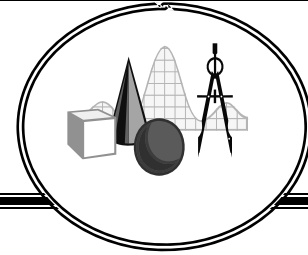
Definition and illustration (if applicable):
a quadrilateral with exactly one pair of parallel sides



Associated terms:

Grades 6 through 8

variable



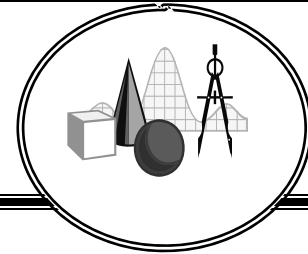
Definition and illustration (if applicable):

a symbolic representation used to denote a quantity or expression; in mathematics, an “unknown” quantity that has the potential to change; in computer science, a place where a value can be stored; in engineering and the physical sciences, a quantity whose value may change over the term of an experiment or systems operation; in applied statistics, a measurable factor, characteristic, or attribute

Associated terms:

Grades 6 through 8

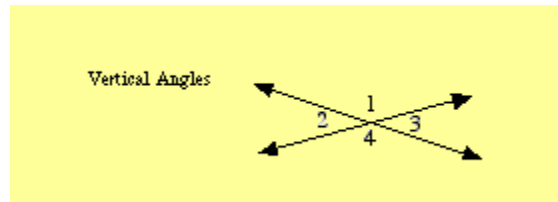
vertical angles



Definition and illustration (if applicable):

angles formed by intersecting lines

Vertical angles have a common vertex and are congruent.



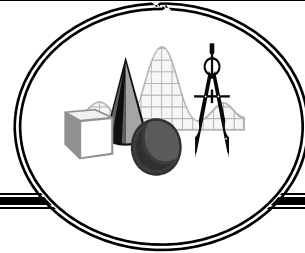
$\angle 1$ and $\angle 4$ are vertical angles.

$\angle 2$ and $\angle 3$ are vertical angles.

Associated terms:

Grades 6 through 8

volume



Definition and illustration (if applicable):

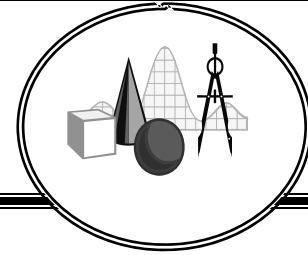
the total amount of space inside a three-dimensional object

Volume is measured in cubic units.

Associated terms:

Grades 6 through 8

whole numbers



Definition and illustration (if applicable):

non-negative integers

{0, 1, 2, 3 ...}

Associated terms: natural numbers, rational numbers, integers